CLAIMED:

1. An optical disc comprising:

    a) a reflective layer;

    b) an optically transparent substrate, wherein the substrate is disposed between the reflective layer and a light incident surface of the optical disc;

    c) a data layer disposed between the substrate and the reflective layer, the data layer including a predetermined signature; and

    d) at least one measurable feature, wherein the at least one feature is quantitatively compared to the predetermined signature for authenticating the optical disc.

2. The optical disc of claim 1, wherein the at least one feature is disposed on the substrate.

3. The optical disc of claim 1, wherein the at least one feature is within the substrate.

4. The optical disc of claim 1, wherein the at least one feature is located on, under, or in the data layer.

5. The optical disc of claim 1, wherein the at least one feature creates a correctable error resulting in no loss in data fidelity when the data layer is read.

6. The optical disc of claim 1, wherein the at least one feature transmits a predetermined level of light intensity when excited by a light source.

7. The optical disc of claim 6, wherein the predetermined signature includes an expected value of the predetermined light intensity of the at least one feature.

8. The optical disc of claim 6, wherein the at least one feature is location-specific.

9. The optical disc of claim 6, wherein the at least one feature is logical-block address specific.

10. The optical disc of claim 6, wherein the predetermined signature includes a relative position for the at least one feature.

11. The optical disc of claim 1, wherein the predetermined signature is plurality of features at specific locations.

12. The optical disc of claim 1, further comprising a plurality of features, each of the plurality of features having a different predetermined light intensity value at each location of the optical disc.

13. The optical disc of claim 1, wherein the predetermined signature includes an address of the optical disc for the at least one feature.

14. The optical disc of claim 6, wherein the at least one feature transmits a plurality of thresholds of light intensity when excited by a light source.

15. The optical disc of claim 1, wherein the at least one feature is formed of a substantially similar color of the substrate.

16. A system for authenticating an optical disc, the system comprising:

a disc drive for supporting and rotating an optical disc including at least one feature;

a light source for directing light onto the at least one feature;

at least one optical pickup for detecting light transmitted from the at least one feature;

an analog-to-digital converter for quantifying an intensity of the detected light; and

a processor for determining if the intensity of light matches a predetermined signature, wherein if the intensity matches the predetermined signature, the optical disc is authenticated.

17. The system as in claim 16, further comprises a digital-to-analog converter for reading digital data from the optical disc, the digital data including the predetermined signature.

18.   The system as in claim 16, further comprises a memory, wherein the processor reads the predetermined signature from the memory.

19.   The system as in claim 16, further comprising a display for visually producing the at least one feature.

20.   In a system including a disc drive for supporting and rotating an optical disc, a light source for directing light onto the optical disc, at least one optical pickup for detecting light transmitted from the optical disc, and an analog-to-digital converter for quantifying an intensity of the detected light, a method for authenticating the optical disc, the method comprising the steps of:

preparing an optical disc with at least one optical feature;

measuring intensity of transmitted light from the at least one optical feature; and

comparing the measured intensity to a predetermined signature, wherein if the measured intensity and predetermined signature matches, the optical disc is allowed to be read.

21.   A method of authenticating an optical disc, the method comprising the steps of:

preparing an optical disc with at least one optical feature;

measuring intensity of transmitted light from the at least one optical feature;

comparing the measured intensity to a predetermined signature, wherein if the measured intensity and predetermined signature matches, the optical disc is allowed to be read.

22.   The method as in claim 21, wherein the predetermined signature is read from the optical disc.

23.   The method as in claim 21, wherein the predetermined signature is a result of the mathematical processing of at least one optical feature.

24. The method as in claim 21, wherein the predetermined signature is a result of the mathematical processing of the optical feature that includes analysis of different spatial regions of the optical feature.

25. The method as in claim 21, wherein authentication of an optical disc includes the process of comparing the precision of the measured signal from different spatial regions of at least one optical feature with the stored reference parameter.

26. The method as in claim 21, wherein the predetermined signature is read from a processor for performing the comparing step.

27. The method as in claim 21, wherein the predetermined signature includes information on a location of the at least one feature, further comprising the step of determining if the location of the at least one feature is an expected location determined from the predetermined signature.

28. A method of authenticating an optical disc, the method comprising the steps of:

preparing an optical disc with at least two optical features;

measuring intensities of transmitted light from the at least two optical features;

comparing the measured intensities from at least two optical features to a predetermined signature, wherein if the predetermined signature matches, the optical disc is allowed to be read.

29. The method as in claim 28, wherein the predetermined signature is a result of the mathematical processing of signatures of at least two optical features.